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FIGURE 1A

ATGGAAAAACTCCATGGGCATGTGTCTGCCCATCCAGACATCCTCTCCT TGGAGAACCGGTGCCTGGCTATGCTCCCTGACTTACAGCCCTTGGAGAA ACTACATCAGCATGTATCTACCCACTCAGATATCCTCTCCTTGAAGAAC CAGTGCCTAGCCACGCTTCCTGACCTGAAGACCATGGAAAAACCACATG GATATGTGTCTGCCCACCCAGACATCCTCTCTCTTGGAGAACCAGTGCCT GGCCACACTTTCTGACCTGAAGACCATGGAGAAACCACATGGACATGTT TCTGCCCACCCAGACATCCTCTCCTTGGAGAACCGGTGCCTGGCCACCC TCCCTAGTCTAAAGAGCACTGTGTCTGCCAGCCCCTTGTTCCAGAGTCT ACAGATATCTCACATGACGCAAGCTGATTTGTACCGTGTGAACAACAGC AATTGCCTGCTCTCTGAGCCTCCAAGTTGGAGGGCTCAGCATTTCTCTA AGGGACTAGACCTTCAACCTGCCCTATAGCCCTGAAATCCATCTCTGC CACAGAGACAGCTCAGGAAGCAACTTTGGGTCGTTGGTTTGATTCAGAA GAGAAGAAGGGGCAGAGACCCAAATGCCTTCTTATAGTCTGAGCTTGG GAGAGGAGGAGGTGGAGGATCTGGCCGTGAAGCTCACCTCTGGAGA CTCTGAATCTCATCCAGAGCCTACTGACCATGTCCTTCAGGAAAAGAAG ATGGCTCTACTGAGCTTGCTGTGCTCTACTCTGGTCTCAGAAGTAAACA TGAACAATACATCTGACCCCACCCTGGCTGCCATTTTTGAAATCTGTCG TGAACTTGCCCTCCTGGAGCCTGAGTTTATCCTCAAGGCATCTTTGTAT GCCAGGCAGCAGCTGAACGTCCGGAATGTGGCCAATAACATCTTGGCCA

FIGURE 18

TTGCTGCTTTCTTGCCGGCGTGTCGCCCCCCCCCCGCGACGATATTTCTG TGCCATTGTCCAGCTGCCTTCTGACTGGATCCAGGTGGCTGAGCTTTAC CAGAGCCTGGCTGAGGGAGATAAGAATAAGCTGGTGCCCCTGCCCGCCT GTCTCCGTACTGCCATGACGGACAAATTTGCCCAGTTTGACGAGTACCA GCTGGCTAAGTACAACCCTCGGAAGCACCGGGCCAAGAGACACCCCCGC CGGCCACCCGCTCTCCAGGGATGGAGCCTCCATTTTCTCACAGATGTT TTCCAAGGTACATAGGGTTTCTCAGAGAAGAGCAGAGAAAGTTTGAGAA GGCCGGTGATACAGTGTCAGAGAAAAAGAATCCTCCAAGGTTCACCCTG AAGAAGCTGGTTCAGCGACTGCACATCCACAAGCCTGCCCAGCACGTTC AAGCCCTGCTGGGTTACAGATACCCCTCCAACCTACAGCTCTTTTCTCG AAGTCGCCTTCCTGGGCCTTGGGATTCTAGCAGAGCTGGGAAGAGGATG AAGCTGTCTAGGCCAGAGACCTGGGAGCGGGGGCTGAGCCTACGGGGGA ACAAAGCGTCGGTCTGGGAGGAACTCATTGAAAATGGGAAGCTTCCCTT CATGCCATGCTTCGGAACCTGTGCAACCTGCTGCGGGTTGGAATCAGT TCCCGCCACCATGAGCTCATTCTCCAGAGACTCCAGCATGGGAAGTCGG TGATCCACAGTCGGCAGTTTCCATTCAGATTTCTTAACGCCCATGATGC CATTGATGCCCTCGAGGCTCAACTCAGAAATCAAGCATTGCCCTTTCCT TCGAATATAACACTGATGAGGCGGATACTAACTAGAAATGAAAAGAACC GTCCCAGGCGAGGTTTCTTTGCCACCTAAGCCGTCAGCAGCTTCGTAT

FIGURE 1C

GGCAATGAGGATACCTGTGTTGTATGAGCAGCTCAAGAGGGAGAAGCTG AGAGTACACAAGGCCAGACAGTGGAAATATGATGGTGAGATGCTGAACA GGTACCGACAGGCCCTAGAGACAGCTGTGAACCTCTCTGTGAAGCACAG CCTGCCCTGCTGCCAGGCCGCACTGTCTTGGTCTATCTGACAGATGCT AATGCAGACAGGCTCTGTCCAAAGAGCAACCCACAAGGGCCCCCGCTGA ACTATGCACTGCTGTTGATTGGGATGATCACGAGGGCGGGGCAGGT GGACGTCGTGTGTGGAGGTGACACTCTGAAGACTGCAGTGCTTAAG GCAGAAGAAGCATCCTGAAGACTGCCATCAAGCTCCAGGCTCAAGTCC AGGAGTTTGATGAAAATGATGGATGGTCCCTGAATACTTTTTGGGAAATA CCTGCTGTCTCTGGCTGGCCAAAGGGTTCCTGTGGACAGGGTCATCCTC CTTGGCCAAAGCATGATGATGAATGATAAATGTGGCCAAACAGCTTT ACTGGCAGCGTGTGAATTCCAAGTGCCTCTTTGTTGGTATCCTCCTAAG AAGGGTACAATACCTGTCAACAGATTTGAATCCCAATGATGTGACACTC TCAGGCTGTACTGATGCGATACTGAAGTTCATTGCAGAGCATGGGGCCT CCCATCTTCTGGAACATGTGGGCCAAATGGACAAAATATTCAAGATTCC ACCACCCCAGGAAAGACAGGGGTCCAGTCTCTCCGGCCACTGGAAGAG GACACTCCAAGCCCCTTGGCTCCTGTTTCCCAGCAAGGATGGCGCAGCA TCCGGCTTTTCATTCATCCACTTTCCGAGACATGCACGGGGAGCGGGA CCTGCTGCTGAGGTCTGTGCTGCCAGCACTGCAGGCCCGAGCGGCCCCT

FIGURE 1D

CACCGTATCAGCCTTCACGGAATCGACCTCCGCTGGGGCGTCACTGAGG AGGAGACCCGTAGGAACAGACAACTGGAAGTGTGCCTTGGGGAGGTGGA GAACGCACAGCTGTTTGTGGGGATTCTGGGCTCCCGTTATGGATACATT CCCCCAGCTACAACCTTCCTGACCATCCACACTTCCACTGGGCCCAGC AGTACCCTTCAGGGCGCTCTGTGACAGAGATGGAGGTGATGCAGTTCCT GAACCGGAACCAACGTCTGCAGCCCTCTGCCCAAGCTCTCATCTACTTC CGGGATTCCAGCTTCAGCTCTGTGCCAGATGCCTGGAAATCTGACT TTGTTTCTGAGTCTGAAGAGGCCGCATGTCGGATCTCAGAACTGAAGAG CTACCTAAGCAGACAGAAAGGGATAACCTGCCGCAGATACCCCTGTGAG TGGGGGGTGTGGCAGCTGGCCGCCCTATGTTGGCGGGCTGGAGGAGT TTGGGCAGTTGGTTCTGCAGGATGTATGGAATATGATCCAGAAGCTCTA CCTGCAGCCTGGGGCCCTGCTGGAGCAGCCAGTGTCCCAGACGAT GACTTGGTCCAGGCCACCTTCCAGCAGCTGCAGAAGCCACCGAGTCCTG CCCGCCACGCCTTCTTCAGGACACAGTGCAACAGCTGATGCTGCCCCA CGGAAGGCTGAGCCTGGTGACGGGCAGTCAGGACAGGCCAAGACAGCC TTCCTGGCATCTCTTGTGTCAGCCCTGCAGGCTCCTGATGGGGCCAAGG TGGCACCATTAGTCTTCTTCCACTTTTCTGGGGCTCGTCCTGACCAGGG TCTTGCCCTCACTCTGCTCAGACGCCTCTGTACCTATCTGCGTGGCCAA CTAAAAGAGCCAGGTGCCCTCCCCAGCACCTACCGAAGCCTGGTGTGGG

FIGURE 1E

AGCTGCAGCAGAGGCTGCTGCCCAAGTCTGCTGAGTCCCTGCATCCTGG CCAGACCCAGGTCCTGATCATCGATGGGGCTGATAGGTTAGTGGACCAG AATGGGCAGCTGATTTCAGACTGGATCCCAAAGAAGCTTCCCCGGTGTG TACACCTGGTGCTGAGTGTCTAGTGATGCAGGCCTAGGGGGAGACCCT TGAGCAGAGCCAGGTGCCCACGTGCTGGCCTTGGGGCCTCTGGAGGCC TCTGCTCGGGCCCGGCTGGTGAGAGAGGAGCTGGCCCTGTACGGGAAGC GGCTGGAGGAGTCACCATTTAACAACCAGATGCGACTGCTGCTGAA GCGGGAATCAGGCCGCCCTCTACCTGCGCTTGGTCACCGATCACCTG AGGCTCTTCACGCTGTATGAGCAGGTGTCTGAGAGACTCCGGACCCTGC CTGCCACTGTCCCCTGCTGCTGCAGCACATCCTGAGCACACTGGAGAA GGAGCACGGCCTGATGTCCTTCCCCAGGCCTTGACTGCCCTAGAAGTC ACACGGAGTGGTTTGACTGTGGACCAGCTGCACGGAGTGCTGAGTGTGT GGCGGACACTACCGAAGGGGACTAAGAGCTGGGAAGAAGCAGTGGCTGC CAGAGTCTGCGCAGTTTGCTAGGGGAGGGCCCTCTGGAGCGCCCTGGTG CCCGCTGTGCCTCCTGATGGGCCCCTGAGAACAGCAGCTAAACGTTG CTATGGGAAGAGGCCAGGGCTAGAGGACACGCCACACATCCTCATTGCA GCTCAGCTCTGGAAGACATGTGACGCTGATGCCTCAGGCACCTTCCGAA GTTGCCCTCCTGAGGCTCTGGGAGACCTGCCTTACCACCTGCTCCAGAG

FIGURE 1F

CGGGAACCGTGGACTTCTTTCGAAGTTCCTTACCAACCTCCATGTGGTG GCTGCACACTTGGAATTGGGTCTGGTCTCTCGGCTCTTGGAGGCCCATG CCCTCTATGCTTCTTCAGTCCCCAAAGAGGAACAAAAGCTCCCCGAGGC TGACGTTGCAGTGTTTCGCACCTTCCTGAGGCAGCAGGCTTCAATCCTC AGCCAGTACCCCGGCTCCTGCCCCAGCAGCAGCCAACCAGCCCCTGG ACTCACCTCTTTGCCACCAAGCCTCGCTGCTCTCCCGGAGATGGCACCT CCAACACACTACGATGGCTTAATAAACCCCGGACCATGAAAAATCAG CAAAGCTCCAGCCTGTCTCTGGCAGTTTCCTCATCCCCTACTGCTGTGG CCTTCTCCACCAATGGGCAAAGAGCAGCTGTGGGCACTGCCAATGGGAC AGTTTACCTGTTGGACCTGAGAACTTGGCAGGAGGAGAAGTCTGTGGTG AGTGGCTGTGATGGAATCTCTGCTTGTTTGTTCCTCTCCGATGATACAC TCTTTCTTACTGCCTTCGACGGCTCCTGGAGCTCTGGGACCTGCAGCA TGGTTGTCGGGTGCTGCAGACTAAGGCTCACCAGTACCAAATCACTGGC TGCTGCCTGAGCCCAGACTGCCGGCTGCTAGCCACCGTGTGCTTGGGAG GATGCCTAAAGCTGTGGGACACAGTCCGTGGGCAGCTGGCCTTCCAGCA CACCTACCCCAAGTCCCTGAACTGTGTTGCCTTCCACCCAGAGGGGCAG GTAATAGCCACAGGCAGCTGGGCTGGCATCAGCTTCTTCCAGGTGG ATGGGCTCAAAGTCACCAAGGACCTGGGGGCACCCGGAGCCTCTATCCG TACCTTGGCCTTCAATGTGCCTGGGGGGGTTGTGGCTGTGGGCCGGCTG

FIGURE 1G

CCTTCCCTGCCACCATGGCTTTGTTGCTGCTGCGCTTTTTCCTGCATGC GGGTTGCCAGTTACTGACGGCTGGAGAGGATGGCAAGGTTCAGGTGTGG TCAGGGTCTCTGGGTCGGCCCCGTGGGCACCTGGGTTCCCTTTCTCTCT CTCCTGCCCTCTCTGTGGCACTCAGCCCAGATGGTGATCGGGTGGCTGT TGGATATCGAGCGGATGGCATTAGGATCTACAAAATCTCTTCAGGTTCC CAGGGGCTCAGGCTCAGGCACTGGATGTGGCAGTGTCCGCCCTGGCCT GGCTAAGCCCCAAGGTATTGGTGAGTGGTGCAGAAGATGGGTCCTTGCA GGGCTGGGCACTCAAGGAATGCTCCCTTCAGTCCCTCTGGCTCCTGTCC AGATTCCAGAAGCCTGTGCTAGGACTGGCCACTTCCCAGGAGCTCTTGG CTTCTGCCTCAGAGGATTTCACAGTGCAGCTGTGGCCAAGGCAGCTGCT GACGCGCCACACGCAGAAGACTTTCCCTGTGGCACTGAGCTGCGG GGACATGAGGCCCTGTGAGCTGCTGTAGTTTCAGCACTGATGGAGGCA GCCTGGCCACCGGGGCCGGGATCGGAGTCTCCTCTGCTGGGACGTGAG GACTGGGTCACTGGCTGTGCCTGGACCAAAGATAACCTACTGATATCCT GCTCCAGTGATGGCTCTGTGGGGCTCTGGGACCCAGAGTCAGGACAGCG GCTTGGTCAGTTCCTGGGTCATCAGAGTGCTGTGAGCGCTGTGGCAGCT GTGGAGGACCACGTGTCTGTGAGCCGGGATGGGACCTTGAAAGTGT

FIGURE 1H

CATTAGCCACTGTGCAGCTGCCATGGAGCCCGTGCAGCTGGACAGCCT GGGTCAGAGCTTCTGGTGGTAACCGTCGGGCTAGATGGGGCCACACGGT TATGGCATCCACTCTTGGTGTGCCAAACCCACACCCTCCTGGGACACAG CGGCCCAGTCCGTGCTGCTGTTTCAGAAACCTCAGGCCTCATGCTG ACCGCCTCTGAGGATGGTTCTGTACGGCTCTGGCAGGTTCCTAAGGAAG CAGATGACACATGTATACCAAGGAGTTCTGCAGCCGTCACTGCTGTGGC TTGGGCACCAGATGGTTCCATGGCAGTATCTGGAAATCAAGCTGGGGAA CTAATCTTGTGGCAGGAAGCTAAGGCTGTGGCCACAGCACAGGCTCCAG GCCACATTGGTGCTCTGATCTGGTCCTCGGCACACACCTTTTTTTGTCCT CAGTGCTGATGAGAAAATCAGCGAGTGGCAAGTGAAACTGCGGAAGGGT TCGCCACCGGAAATTTGAGTCTTCACCTGAACCGAATTCTACAGGAGG ACTTAGGGGTGCTGACAAGTCTGGATTGGGCTCCTGATGGTCACTTTCT CATCTTGGCCAAAGCAGATTTGAAGTTACTTTGCATGAAGCCAGGGGAT GCTCCATCTGAAATCTGGAGCAGCTATACAGAAAATCCTATGATATTGT CCACCACAAGGAGTATGGCATATTTGTCCTGCAGCCCAAGGATCCTGG AGTTCTTTCTTTGAGGCAAAAGGAATCAGGAGAGTTTGAAGAGAGG CTGAACTTTGATATAAACTTAGAGAATCCTAGTAGGACCCTAATATCGA TAACTCAAGCCAAACCTGAATCTGAGTCCTCATTTTTGTGTGCCAGCTC

FIGURE 11

TGATGGGATCCTATGGAACCTGGCCAAATGCAGCCCAGAAGGAGAATGG
ACCACAGGTAACATGTGGCAGAAAAAAAGCAAACACTCCAGAAACCCAAA
CTCCAGGGACAGACCCATCTACCTGCAGGGAATCTGATGCCAGCATGGA
TAGTGATGCCAGCATGGATAGTGAGCCAACACCACATCTAAAGACACGG
CAGCGTAGAAAGATTCACTCGGGCTCTGTCACAGCCCTCCATGTGCTAC
CTGAGTTGCTGGTGACAGCTTCGAAGGACAGAGATGTTAAGCTATGGGA
GAGACCCAGTATGCAGCTGCTGGGCCTGTTCCGATGCGAAGGGTCAGTG
AGCTGCCTGGAACCTTGGCTGGGCCTAACTCCACCCTGCAGCTTGCCG

FIGURE 2A

ATGGAGAAGCTCTGTGGGCATGTGCCTGGCCATTCAGACATCCTCTCT TGAAGAACCGGTGCCTGACCATGCTCCCTGACCTCCAGCCCCTGGAGAA AATACATGGACATAGATCTGTCCACTCAGACATCCTTTCCTTGGAGAAC CAGTGTCTGACCATGCTCTCTGACCTCCAGCCCACGGAGAGAATAGATG GGCATATATCTGTCCACCCAGACATCCTCTCTCTGGAGAATCGGTGCCT GACCATGCTCCTGACCTCCAGCCTCTGGAGAAGCTATGTGGACATATG TCTAGTCATCCAGACGTCCTTTCTTTGGAAAACCAATGTCTAGCTACTC TCCCCACTGTAAAGAGCACTGCATTGACCAGCCCCTTGCTCCAGGGTCT TCACATATCTCATACGGCACAAGCTGATCTGCATAGCCTGAAAACTAGC AACTGCCTGCTCCTGAGCTTCCTACCAAGAAGACTCCATGTTTCTCTG AGGAACTAGACCTTCCACCTGGACCCAGGGCCCTGAAATCCATGTCTGC TACAGCTCAAGTCCAGGAAGTAGCCTTGGGTCAATGGTGTGTCTCCAAA GAAAAGGAATTTCAAGAAGAAGAAGCACAGAAGTCCCRATGCCTTTGT ACAGTCTAAGCTTGGAAGAAGAAGAAGTGGAGGCACCGGTCTTAAAACT CACATCTGGAGACTCTGGCTTTCATCCTGAAACCACTGACCAGGTCCTT CAGGAGAAGAAGATGGCTCTCTTGACCTTTACTCTGCTCTGCTCTGGCCTTGAAGTCTGTAGTGCCCTGGCCTCCTTGGAACCGGAGTTCATCCTTAAG GCATCTTTGTATGCTCGGCAGCAACTTAACCTCCGGGACATCGCCAATA

FIGURE 2B

CAGTTCTGGCTGTGCCTCTTGCCAGCCTGCCGCCCCCATGTACG ACGGTATTACTCCGCCATTGTTCACCTGCCTTCAGACTGGATCCAGGTA GCCGAGTTCTACCAGAGCCTGGCAGAAGGGGGATGAGAAGAAGTTGGTGT CCCTGCCTGTCTCCGAGCTGCCATGACCGACAAATTTGCCGAGTT TGATGAGTACCAGCTAGCTAAGTACAACCCACGGAAACATCGGTCCAAG AGGCGGTCCCGCCAGCCACCCGCCCTCAAAAGACAGAACGTCCATTTT CAGAGAGAGGGAAATGTTTTCCAAAGAGCCTTTGGCCCCTTAAAAATGA ACAGATTACGTTTGAAGCAGCTTATAATGCAATGCCAGAGAAAAACAGG CTACCACGGTTCACTCTGAAGAAGTTGGTAGAGTATCTACATATCCACA AGCCTGCTCAGCACGTCCAGGCCCTGCTGGGCTACAGGTACCCAGCCAC CCTAGAGCTCTTTTCTCGGAGTCACCTCCCTGGGCCGTGGGAGTCTAGC AGAGCTGGTCAGCGGATGAAGCTCCGAAGGCCAGAGACCTGGGAGCGGG AGCTGAGTTTACGGGGAAACAAAGCTTCTGTGTGGGAGGAGCTCATAGA CAATGGGAAACTGCCCTTCATGGCCATGCTCCGGAACCTGTGTAACCTG CTGCGGACTGGGATCAGTGCCCGCCACCATGAACTCGTTCTCCAGAGAC TCCAGCATGAGAAATCTGTGGTTCACAGTCGGCAGTTTCCATTCAGATT CCTTAATGCTCATGACTCTATCGATAAACTTGAGGCTCAGCTCAGAAGC AAAGCATCACCCTTCCCAATACAACATTGATGAAACGGATAATGA TTAGAAACTCAAAAAAAAATAGGAGGCCTGCCAGTCGGAAGCACCTGTG

FIGURE 2C

CACCCTGACGCCGGCAGCTTCGGGCAGCAATGACTATACCTGTGATG TATGAGCAGCTCAAGCGGGAGAAACTGAGGCTGCACAAGGCCAGACAAT GGAACTGTGATGTTGAGTTGCTGGAGCGCTATCGCCAGGCCCTGGAAAC AGCTGTGAACCTCTCAGTAAAGCACAACCTATCCCCGATGCCTGGCCGA ACCCTCTTGGTCTATCTCACAGATGCAAATGCCGACAGGCTCTGTCCCA AGAGTCACTCACAAGGGCCTCCCCTGAACTATGTGCTGCTGCTGATCGG AATGATGGTGGCTCGAGCCGAGCAGTGACTGTTTGCTTTGTGTGGGGGGA GGATTTGTGAAGACACCGGTACTTACAGCCGATGAAGGCATCCTGAAGA CTGCCATCAAACTTCAGGCTCAAGTCCAGGAGTTAGAAGGCAATGATGA GTGGCCCTGGACACTTTTGGGAAGTATCTGCTGTCTCTGGCTGTCCAA AGCTCCTGAAAGTAGCCAAACAGATTATCTGGCAGCATGTGAATTCCAA GTGCCTCTTTGTTGGTGTCCTCCTACAGAAAACACAGTACATATCACCA AATTTGAATCCCAACGATGTGACGCTCTCAGGCTGCACTGACGGGATCC TGAAATTCATTGCCGAACATGGAGCCTCTCGTCTCCTGGAACATGTGGG ACAACTAGATAAACTATTCAAGATCCCCCCACCCCAGGAAAGACACAG GCACCGTCTCCCGCCGCTGGAGGAGAACATCCCTGGTCCCTTGGGTC CTATTTCCCAGCATGGATGGCGCAATATCCGGCTTTTCATTTCATCCAC TTTCCGTGACATGCATGGGGAGCGAGATTTGCTGATGAGATCTGTTCTG

FIGURE 2D

CCCGCACTGCAGGCCAGAGTGTTCCCCCACCGCATCAGTCTTCACGCCA TTGACCTGCGCTGGGGTATCACAGAGGAAGAGACCCGCAGGAACAGACA ACTGGAAGTGTGCCTTGGGGAGGTGGAGAACTCACAGCTGTTCGTGGGG ATTCTGGGCTCCCGCTATGGCTACATTCCCCCCCAGCTATGATCTTCCTG ATCATCCCCACTTTCACTGGACCCATGAGTACCCTTCAGGGCGATCCGT GACAGAGATGGAGGTGATGCAATTCCTGAACCGTGGCCAACGCTCGCAG CCTTCGGCCCAAGCTCTCATCTACTTCCGAGATCCTGATTTCCTTAGCT CTGTGCCAGATGCCTGGAAACCTGACTTTATATCTGAGTCAGAAGAAGC TGCACATCGGGTCTCAGAGCTGAAGAGATATCTACACGAACAGAAAGAG GTTACCTGTCGCAGCTACTCCTGTGAATGGGGAGGTGTAGCGGCTGGCC GGCCCTATACTGGGGGCCTGGAGGAGTTTGGACAGTTGGTTCTCCAGGA TGTGTGGAGCATGATCCAGAAGCAGCACCTGCAGCCTGGGGCCCAGTTG GAGCAGCCAACATCCATCTCAGAAGACGATTTGATCCAGACCAGCTTTC AGCAGCTGAAGACCCCAACGAGTCCGGCACGGCCACGCCTTCTTCAGGA TACAGTGCAGCAGCTGTTGCTGCCCCATGGGAGGCTGAGCCTAGTGACT GGGCAGGCAGGCAAAGACTGCCTTTCTGGCATCCCTTGTGTCTG CTTTGCAGCAGCCCGCCCTGACCAGTGTCTTGCTCTCAACCTCCTCAGA CGCCTCTGTACCCATCTGCGTCAAAAACTGGGAGAGCTGAGTGCCCTCC

FIGURE 2E

CCAGCACTTACAGAGGCCTGGTGTGGGAACTGCAGCAGAAGTTGCTCCT CAAATTCGCTCAGTCGCTGCAGCCTGCTCAGACTTTGGTCCTTATCATC GATGGGCAGATAAGTTGGTGGATCGTAATGGGCAGCTGATTTCAGACT GGATCCCCAAGTCTCTTCCGCGGCGAGTACACCTGGTGCTGAGTGTGTC CAGTGACTCAGGCCTGGGTGAGACCCTTCAGCAAAGTCAGGGTGCTTAT GTGGTGGCCTTGGGCTCTTTGGTCCCATCTTCAAGGGCTCAGCTTGTGA GAGAAGAGCTAGCACTGTATGGGAAACGACTGGAGGAGTCACCTTTTAA CAACCAGATGCGGCTGCTGCCAAAGCAGGGTTCAAGCCTGCCATTG TACCTGCACCTTGTCACTGACTACCTGAGGCTCTTCACACTGTATGAAC AGGTGTCTGAGAGACTTCGAACCCTGCCCGCCACTCTCCCACTGCTCTT GCAGCACATCCTGAGCACCTTGGAGCAAGAACATGGCCATGATGTCCTT CCTCAGGCTTTGACTGCCCTTGAGGTCACACGAAGTGGTCTGACTGTGG ACCAGCTACATGCAATCCTGAGCACATGGCTGATCTTGCCCAAGGAGAC TAAGAGCTGGGAAGAGTGCTGGCTGCCAGTCACAGTGGAAACCCTTTC CCCTTGTGTCCATTTGCCTACCTTGTCCAGAGTCTACGCAGTTTACTAG GGGAGGCCCAGTGGAGCGCCCTGGTGCCCGTCTCTGCCTCTCTGATGG GCCCTGAGGACAACAATTAAACGTCGCTATGGGAAAAGGCTGGGGCTA GAGAAGACTGCGCATGTCCTCATTGCAGCTCACCTCTGGAAGACGTGTG ATCCTGATGCCTCGGGCACCTTCCGAAGTTGCCCTCCTGAGGCTCTGAA

FIGURE 2F

AGATTTACCTTACCACCTGCTCCAGAGCGGGAACCATGGTCTCCTTGCC GAGTTTCTTACCAATCTCCATGTGGTTGCTGCATATCTGGAAGTGGGTC TAGTCCCCGACCTCTTGGAGGCTCATGTGCTCTATGCTTCTTCAAAGCC TGAAGCCAACCAGAAGCTCCCAGCGGCAGATGTTGCTGTTTTCCATACC TTCCTGAGACAACAGGCTTCACTCCTTACCCAGTATCCTTTGCTCCTGC TCCAGCAGGCAGCTAGCCAGCCTGAAGAGTCACCTGTTTGCTGCCAGGC CCCCTGCTCACCCAGCGATGGCACGACCAGTTCACACTGAAATGGATT AATAAACCCCAGACCCTGAAGGGTCAGCAAAGCTTGTCTCTGACAATGT CCTCATCCCCAACTGCTGTGGCCTTCTCCCCGAATGGGCAAAGAGCAGC TGTGGGGACCGCCAGTGGGACAATTTACCTGTTGAACTTGAAAACCTGG CAGGAGGAGAAGGCTGTGGTGAGTGGCTGTGACGGGATTTCCTCTTTTG CATTCCTTTCGGACACTGCCCTTTTCCTTACTACCTTCGACGGCACCT AGAGCTTTGGGACCTGCAACATGGTTGTTGGGTGTTTCAGACCAAGGCC CACCAGTACCAAATCACTGGCTGCTGCCTGAGCCCAGACCGCCGCCTGC TGGCCACTGTGTGTTTGGGAGGATACCTAAAGCTGTGGGACACAGTCCG AGGACAGCTGGCTTTCAGTACACCCATCCAAAGTCTCTCAACTGCGTT GCCTTCCACCCAGAGGGGCAGGTGGTAGCCACAGGCAGCTGGGCTGGCA GCATTACCTTCTTCCAGGCAGATGGACTCAAAGTCACCAAGGAACTAGG GGCCCCGGACCCTCTGTCTGTAGTTTGGCATTCAACAAACCTGGGAAG

FIGURE 2G

ATTGTGGCTGTGGGCCGGATAGATGGGACAGTGGAGCTGTGGGCCTGGC AAGAGGGTGCCCGGCTGGCGCCTTCCCTGCACAGTGTGGCTGTCTC TGCTGTTCTTTCTTGCATGCTGGAGACCGGTTCCTGACTGCTGGAGAA GCCTGGGCTCTCTTCCTCTTTCTCCTGCACTCTCGGTGGCTCTCAACCC AGACGGTGACCAGGTGGCTGTTGGGTACCGAGAAGATGGCATTAACATC TACAAGATTTCTTCAGGTTCCCAGGGGCCTCAGCATCAAGAGCTAAATG TGGCGGTGTCTGCACTGGTGTGGCTGAGCCCTAGTGTTTTGGTGAGTGG TGCAGAAGATGGATCCCTGCATGGTTGGATGTTCAAGGGAGACTCCCTT CATTCCCTGTGGCTGTTGTCGAGATACCAGAAGCCTGTGCTGGGACTGG CTGCCTCCGGGAACTCATGGCTGCTGCCTCAGAGGACTTCACTGTGAG ACTGTGGCCCAGACAGCTGCTGACACACCCACATGTGCATGCGGTAGAG TTGCCCTGTTGTGCTGAACTCCGGGGACACGAGGGGCCAGTGTGCTGCT GTAGCTTCAGCCCTGATGGAGGCATCTTGGCCACAGCTGGCAGGGATCG GAATCTCCTTTGCTGGGACATGAAGATAGCCCAAGCCCCTCTCCTGATT CACACTTTCTCGTCCTGTCATCGTGACTGGATCACTGGCTGTGCGTGGA CCAAAGACAACATCCTGGTCTCCTGCTCGAGTGATGGCTCTGTGGGACT CTGGAACCCAGAGGCAGGCAGCAACTTGGCCAGTTCTCAGGCCACCAG AGTGCCGTGAGCGCCGTGGTTGCTGTGAGCACACATTGTATCTGTGA

FIGURE 2H

GCCGAGATGGGACCTTGAAAGTGTGGGACCATCAGGGTGTGGAGCTGAC CAGCATCCCTGCCCATTCCGGACCCATCAGCCAGTGTGCAGCTGCTCTG GAGCCCCGCCCAGGGGACAGCCTGGATCAGAGCTTCTGGTGGTGACTG TTGGACTAGATGGGGCCACAAAGTTGTGGCATCCCCTGTTGGTGTGCCA AATACGTACTCTCCAGGGACACAGTGGCCCAGTCACAGCAGCTGCTCCT TCAGAGGCCTCAGGCCTCCTGACCTCAGATGATAGCTCTGTACAGC TCTGGCAGATACCAAAGGAAGCAGATGATTCATACAAACCTAGGAGTTC TGTGGCCATCACTGCTGTGGCATGGCACCGGATGGTTCTATGGTGGTG TCCGGAAATGAAGCCGGGGAACTGACACTGTGGCAGCAAGCCAAGGCTG TGGCTACCGCACAGGCTCAGGCCGCGTCAGTCACCTGATCTGGTACTC GGCAAATTCATTCTTCGTTCTCAGTGCTAATGAAAACGTCAGCGAGTGG CAAGTGGGACTGAGGAAAGGTTCAACGTCCACCAGTTCCAGTCTTCATC TGAAGAGAGTTCTGCAGGAGGACTGGGGGGTCTTGACAGGTCTGGGTCT GGCCCTGATGGCCAGTCTCTCATCTTGATGAAAGAGGATGTGGAATTA CTAGAGATGAAGCCTGGGTCTATTCCATCTTCTATCTGCAGGAGGTATG GAGTACATTCTTCAATACTGTGCACCAGCAAGGAGTACGGCTTGTTCTA CCTGCAGCAGGGGACTCCGGATTACTTTCTATATTGGAGCAAAAGGAG TCAGGGGAGTTTGAAGAGATCCTGGACTTCAATCTGAACTTAAATAATC CTAATGGGTCCCCAGTATCAATCACTCAGGCCAAACCTGAGTCTGAATC

FIGURE 21

ATCCCTTTTGTGCGCCACCTCTGATGGGATGCTGTGGAACTTATCTGAA
TGTACCTCAGAGGGAGAATGGATCGTAGATAACATTTGGCAGAAAAAAG
CAAAAAAACCTAAAACTCAGACTCTGGAGACAGAGTTGTCCCCGCACTC
AGAGTTGGATTTTTCCATTGATTGCTGGATTGATCCCACAAATTTAAAG
GCACAGCAGTGTAAAAAGATCCACTTGGGCTCTGTCACAGCCCTCCATG
TGCTTCCGGGATTGCTGGTGACAGCTTCGAAGGACAGAGATGTTAAGCT
GTGGGAGAGACCCAGTATGCAGCTGCTGGGCTTGTTCCGATGTGAAGGG
CCAGTGAGCTGTTGGAACCTTGGATGGAGCCCAGCTCTCCCCTGCAGC

FIGURE 3A

MEKLHGHVSAHPDILSLENRCLAMLPDLQPLEKLHQHVSTHSDILSLKN QCLATLPDLKTMEKPHGYVSAHPDILSLENQCLATLSDLKTMEKPHGHV SAHPDILSLENRCLATLPSLKSTVSASPLFQSLQISHMTQADLYRVNNS NCLLSEPPSWRAQHFSKGLDLSTCPIALKSISATETAQEATLGRWFDSE EKKGAETOMPSYSLSLGEEEEVEDLAVKLTSGDSESHPEPTDHVLOEKK MALLSLLCSTLVSEVNMNNTSDPTLAAIFEICRELALLEPEFILKASLY **ARQQLNVRNVANNILAIAAFLPACRPHLRRYFCAIVQLPSDWIQVAELY** OSLAEGDKNKLVPLPACLRTAMTDKFAOFDEYOLAKYNPRKHRAKRHPR RPPRSPGMEPPFSHRCFPRYIGFLREEORKFEKAGDTVSEKKNPPRFTL KKLVQRLHIHKPAQHVQALLGYRYPSNLQLFSRSRLPGPWDSSRAGKRM KLSRPETWERELSLRGNKASVWEELIENGKLPFMAMLRNLCNLLRVGIS SRHHELILORLOHGKSVIHSROFPFRFLNAHDAIDALEAOLRNOALPFP SNITLMRRILTRNEKNRPRRRFLCHLSROOLRMAMRIPVLYEOLKREKL RVHKAROWKYDGEMLNRYROALETAVNLSVKHSLPLLPGRTVLVYLTDA NADRLCPKSNPQGPPLNYALLLIGMMITRAEQVDVVLCGGDTLKTAVLK AEEGILKTAIKLQAQVQEFDENDGWSLNTFGKYLLSLAGQRVPVDRVIL LGOSMDDGMINVAKQLYWQRVNSKCLFVGILLRRVQYLSTDLNPNDVTL SGCTDAILKFIAEHGASHLLEHVGQMDKIFKIPPPPGKTGVQSLRPLEE DTPSPLAPVSQOGWRSIRLFISSTFRDMHGERDLLLRSVLPALQARAAP

FIGURE 38

HRISLHGIDLRWGVTEEETRRNRQLEVCLGEVENAQLFVGILGSRYGYI PPSYNLPDHPHFHWAQQYPSGRSVTEMEVMOFLNRNORLOPSAOALIYF RDSSFLSSVPDAWKSDFVSESEEAAXRISELKSYLSRQKGITCRRYPCE WGGVAAGRPYVGGLEEFGOLVLODVWNMIOKLYLOPGALLEOPVSIPDD DLVOATFOOLOKPPSPARPRLLODTVOXLMLPHGRLSLVTGOSGOGKTA FLASLVSALQAPDGAKVAXLVFFHFSGARPDQGLALTLLRRLCTYLRGO LKEPGALPSTYRSLVWELQQRLLPKSAESLHPGQTQVLIIDGADRLVDQ NGQLISDWIPKKLPRCVHLVLSVSSDAGLGETLEQSQGAHVLALGPLEA SARARLVREELALYGKRLEESPFNNQMRLLLVKRESGRPLYLRLVTDHL RLFTLYEQVSERLRTLPATVPLLLQHILSTLEKEHGPDVLPQALTALEV TRSGLTVDOLHGVLSVWRTLPKGTKSWEEAVAAGNSGDPYPMGPFACLV QSLRSLLGEGPLERPGARLCLPDGPLRTAAKRCYGKRPGLEDTAHILIA AQLWKTCDADASGTFRSCPPEALGDLPYHLLOSGNRGLLSKFLTNLHVV AAHLELGLVSRLLEAHALYASSVPKEEQKLPEADVAVFRTFLRQQASIL SQYPRLLPQQAANQPLDSPLCHQASLLSRRWHLQHTLRWLNKPRTMKNQ QSSSLSLAVSSSPTAVAFSTNGQRAAVGTANGTVYLLDLRTWQEEKSVV SGCDGISACLFLSDDTLFLTAFDGLLELWDLOHGCRVLOTKAHOYOITG CCLSPDCRLLATVCLGGCLKLWDTVRGQLAFQHTYPKSLNCVAFHPEGQ VIATGSWAGSISFFOVDGLKVTKDLGAPGASIRTLAFNVPGGVVAVGRL

FIGURE 3C

DSMVELWAWREGARLAAFPAHHGFVAAALFLHAGCQLLTAGEDGKVQVW SGSLGRPRGHLGSLSLSPALSVALSPDGDRVAVGYRADGIRIYKISSGS OGAQGOALDVAVSALAWLSPKVLVSGAEDGSLOGWALKECSLOSLWLLS RFQKPVLGLATSQELLASASEDFTVQLWPRQLLTRPHKAEDFPCGTELR GHEGPVSCCSFSTDGGSLATGGRDRSLLCWDVRTPKTPVLIHSFPACHR DWVTGCAWTKDNLLISCSSDGSVGLWDPESGORLGOFLGHOSAVSAVAA VEEHVVSVSRDGTLKVWDHQGVELTSIPAHSGPISHCAAAMEPRAAGOP GSELLVVTVGLDGATRLWHPLLVCQTHTLLGHSGPVRAAAVSETSGLML TASEDGSVRLWQVPKEADDTCIPRSSAAVTAVAWAPDGSMAVSGNQAGE LILWQEAKAVATAQAPGHIGALIWSSAHTFFVLSADEKISEWQVKLRKG SAPGNLSLHLNRILOEDLGVLTSLDWAPDGHFLILAKADLKLLCMKPGD APSEIWSSYTENPMILSTHKEYGIFVLOPKDPGVLSFLROKESGEFEER LNFDINLENPSRTLISITQAKPESESSFLCASSDGILWNLAKCSPEGEW TTGNMWOKKANTPETOTPGTDPSTCRESDASMDSDASMDSEPTPHLKTR ORRKIHSGSVTALHVLPELLVTASKDRDVKLWERPSMOLLGLFRCEGSV SCLEPWLGANSTLQLAVGDVQGNVYFLNWE

FIGURE 4A

MEKLCGHVPGHSDILSLKNRCLTMLPDLQPLEKIHGHRSVHSDILSLEN QCLTMLSDLQPTERIDGHISVHPDILSLENRCLTMLPDLOPLEKLCGHM SSHPDVLSLENOCLATLPTVKSTALTSPLLOGLHISHTAOADLHSLKTS NCLLPELPTKKTPCFSEELDLPPGPRALKSMSATAOVOEVALGOWCVSK EKEFOEEESTEVPMPLYSLSLEEEEVEAPVLKLTSGDSGFHPETTDOVL QEKKMALLTLLCSALASNVNVKDASDLTRASILEVCSALASLEPEFILK ASLYARQQLNLRDIANTVLAVAALLPACRPHVRRYYSAIVHLPSDWIOV AEFYOSLAEGDEKKLVSLPACLRAAMTDKFAEFDEYQLAKYNPRKHRSK RRSRQPPRPQKTERPFSERGKCFPKSLWPLKNEQITFEAAYNAMPEKNR LPRFTLKKLVEYLHIHKPAQHVQALLGYRYPATLELFSRSHLPGPWESS RAGORMKLRRPETWERELSLRGNKASVWEELIDNGKLPFMAMLRNLCNL LRTGISARHHELVLQRLQHEKSVVHSRQFPFRFLNAHDSIDKLEAOLRS KASPFPSNTTLMKRIMIRNSKKNRRPASRKHLCTLTRRQLRAAMTIPVM YEOLKREKLRLHKAROWNCDVELLERYROALETAVNLSVKHNLSPMPGR TLLVYLTDANADRLCPKSHSOGPPLNYVLLLIGMMVARAEOVTVCLCGG GFVKTPVLTADEGILKTAIKLQAQVQELEGNDEWPLDTFGKYLLSLAVQ RTPIDRVILFGORMDTELLKVAKOIIWOHVNSKCLFVGVLLOKTOYISP NLNPNDVTLSGCTDGILKFIAEHGASRLLEHVGQLDKLFKIPPPPGKTQ APSLRPLEENIPGPLGPISOHGWRNIRLFISSTFRDMHGERDLLMRSVL

FIGURE 4B

PALQARVFPHRISLHAIDLRWGITEEETRRNRQLEVCLGEVENSOLFVG ILGSRYGYIPPSYDLPDHPHFHWTHEYPSGRSVTEMEVMQFLNRGQRSQ PSAQALIYFRDPDFLSSVPDAWKPDFISESEEAAHRVSELKRYLHEOKE VTCRSYSCEWGGVAAGRPYTGGLEEFGOLVLODVWSMIOKOHLOPGAOL EOPTSISEDDLIOTSFOOLKTPTSPARPRLLODTVOOLLLPHGRLSLVT GQAGQGKTAFLASLVSALKVPDQPNEPPFVFFHFAAARPDQCLALNLLR RLCTHLRQKLGELSALPSTYRGLVWELQQKLLLKFAQSLQPAQTLVLII DGADKLVDRNGQLISDWIPKSLPRRVHLVLSVSSDSGLGETLQQSQGAY VVALGSLVPSSRAQLVREELALYGKRLEESPFNNOMRLLLAKOGSSLPL YLHLVTDYLRLFTLYEQVSERLRTLPATLPLLLQHILSTLEQEHGHDVL PQALTALEVTRSGLTVDQLHAILSTWLILPKETKSWEEVLAASHSGNPF PLCPFAYLVOSLRSLLGEGPVERPGARLCLSDGPLRTTIKRRYGKRLGL EKTAHVLIAAHLWKTCDPDASGTFRSCPPEALKDLPYHLLOSGNHGLLA **EFLTNLHVVAAYLEVGLVPDLLEAHVLYASSKPEANOKLPAADVAVFHT** FLRQQASLLTQYPLLLLQQAASQPEESPVCCQAPLLTQRWHDQFTLKWI NKPOTLKGOOSLSLTMSSSPTAVAFSPNGORAAVGTASGTIYLLNLKTW QEEKAVVSGCDGISSFAFLSDTALFLTTFDGHLELWDLQHGCWVFQTKA HQYQITGCCLSPDRRLLATVCLGGYLKLWDTVRGQLAFQYTHPKSLNCV AFHPEGOVVATGSWAGSITFFOADGLKVTKELGAPGPSVCSLAFNKPGK

FIGURE &C

IVAVGRIDGTVELWAWQEGARLAAFPAQCGCVSAVLFLHAGDRFLTAGE DGKAQLWSGFLGRPRGCLGSLPLSPALSVALNPDGDQVAVGYREDGINI YKISSGSOGPOHOELNVAVSALVWLSPSVLVSGAEDGSLHGWMFKGDSL HSLWLLSRYOKPVLGLAASRELMAAASEDFTVRLWPROLLTOPHVHAVE LPCCAELRGHEGPVCCCSFSPDGGILATAGRDRNLLCWDMKIAOAPLLI HTFSSCHRDWITGCAWTKDNILVSCSSDGSVGLWNPEAGOOLGOFSGHO SAVSAVVAVEEHIVSVSRDGTLKVWDHQGVELTSIPAHSGPISQCAAAL EPRPGGOPGSELLVVTVGLDGATKLWHPLLVCOIRTLOGHSGPVTAAAA SEASGLLLTSDDSSVQLWQIPKEADDSYKPRSSVAITAVAWAPDGSMVV SGNEAGELTLWQQAKAVATAQAPGRVSHLIWYSANSFFVLSANENVSEW QVGLRKGSTSTSSSLHLKRVLQEDWGVLTGLGLAPDGQSLILMKEDVEL LEMKPGSIPSSICRRYGVHSSILCTSKEYGLFYLOOGDSGLLSILEOKE SGEFEEILDFNLNLNNPNGSPVSITOAKPESESSLLCATSDGMLWNLSE CTSEGEWIVDNIWOKKAKKPKTOTLETELSPHSELDFSIDCWIDPTNLK AOOCKKIHLGSVTALHVLPGLLVTASKDRDVKLWERPSMOLLGLFRCEG PVSCLEPWMEPSSPLQLAVGDTQGNLYFLSWE

FIGURE 5A

CACGCGTCCGGCAGCGCTGCGTCCTGCTGCGCACGTGGGAAGCCCTGG CCCCGCCACCCCGCGATGCCGCGCGCTCCCCGCTGCCGAGCCGTGCG CTCCCTGCTGCGCAGCCACTACCGCGAGGTGCTGCCGCTGGCCACGTTC GTGCGCCCTGGGGCCCCAGGGCTGGCGCTGGTGCAGCGCGGGACC CGGCGGCTTTCCGCGCGCTGGTGCCCAGTGCCTGGTGTGCCCTG GGACGCACGCCCCCCCCCCCCCCCTCCTTCCGCCAGGTGTCCTGC CTGAAGGAGCTGGTGGCCGAGTGCTGCAGAGGCTGTGCGAGCGCGGCG CGAAGAACGTGCTGGCCTTCGGCTTCGCGCTGCTGGACGGGCCCGCGG GGGCCCCCGAGGCCTTCACCACCAGCGTGCGCAGCTACCTGCCCAAC GCCGCGTGGCGACGACGTGCTGGTTCACCTGCTGGCACGCTGCGCGCT CTTTGTGCTGGTGGCTCCCAGCTGCGCCTACCAGGTGTGCGGGCCGCCG CTGTACCAGCTCGGCGCTGCCACTCAGGCCCGGCCCCCGCCACACGCTA GTGGACCCGAAGGCGTCTGGGATGCGAACGGGCCTGGAACCATAGCGT CAGGGAGGCCGGGTCCCCCTGGGCCTGCCAGCCCCGGGTGCGAGGAGG CGCGGGGCAGTGCCAGCCGAAGTCTGCCGTTGCCCAAGAGGCCCAGGC GTGGCGCTGCCCTGAGCCGGAGCGCCCGTTGGGCAGGGGTCCTG GGCCCACCGGGCAGGACGCGTGGACCGAGTGACCGTGGTTTCTGTGTG GTGTCACCTGCCAGACCCGCCGAAGAAGCCACCTCTTTGGAGGGTGCGC

FIGURE 5B

TCTCTGGCACGCGCCACTCCACCCATCCGTGGGCCGCCAGCACCACGC GGGCCCCCATCCACATCGCGGCCACCACGTCCCTGGGACACGCCTTGT CCCCGGTGTACGCCGAGACCAAGCACTTCCTCTACTCCTCAGGCGACA AGGAGCAGCTGCGGCCCTCCTTCCTACTCAGCTCTCTGAGGCCCAGCCT GACTGGCGCTCGGAGGCTCGTGGAGACCATCTTTCTGGGTTCCAGGCCC TGGATGCCAGGGACTCCCCGCAGGTTGCCCCGCCTGCCCCAGCGCTACT GGCAAATGCGGCCCCTGTTTCTGGAGCTGCTTGGGAACCACGCGCAGTG CCCTACGGGTGCTCCTCAAGACGCACTGCCGCTGCGAGCTGCGGTC ACCCAGCAGCCGTGTCTGTGCCCGGGAGAAGCCCCAGGGCTCTGTGG CGGCCCCGAGGAGGAGGACACAGACCCCCGTCGCCTGGTGCAGCTGCT CCGCCAGCACAGCCCCTGGCAGGTGTACGGCTTCGTGCGGGCCTGC CTGCGCCGGCTGGTGCCCCCAGGCCTCTGGGGCTCCAGGCACAACGAAC GCCGCTTCCTCAGGAACACCAAGAAGTTCATCTCCCTGGGGAAGCATGC CAAGCTCTCGCTGCAGGAGCTGACGTGGAAGATGAGCGTGCGGGACTGC GCTTGGCTGCGCAGGAGCCCAGGGGTTGGCTGTGTTCCGGCCGCAGAGC ACCGTCTGCGTGAGGAGATCCTGGCCAAGTTCCTGCACTGGCTGATGAG TGTGTACGTCGAGCTGCTCAGGTCTTTCTTTTATGTCACGGAGACC ACGTTTCAAAAGAACAGGCTCTTTTTCTACCGGAAGAGTGTCTGGAGCA AGTTGCAAAGCATTGGAATCAGACAGCACTTGAAGAGGGTGCAGCTGCG

FIGURE 5C

GGAGCTGTCGGAAGCAGAGGTCAGGCAGCATCGGGAAGCCAGGCCCGCC CTGCTGACGTCCAGACTCCGCTTCATCCCCAAGCCTGACGGGCTGCGGC CGATTGTGAACATGGACTACGTCGTGGGAGCCAGAACGTTCCGCAGAGA AAAGAGGCCGAGCGTCTCACCTCGAGGGTGAAGGCACTGTTCAGCGTG CTCAACTACGAGCGGCGCGCGCCCCGGCCTCCTGGGCGCCTCTGTGC TGGGCCTGGACGATATCCACAGGGCCTGGCGCACCTTCGTGCTGCTGT GCGGCCCAGGACCCGCCGCCTGAGCTGTACTTTGTCAAGGTGGATGTG ACGGCGCGTACGACACCATCCCCCAGGACAGGCTCACGGAGGTCATCG CCAGCATCATCAAACCCCAGAACACGTACTGCGTGCGTCGGTATGCCGT GGTCCAGAAGGCCGCCCATGGGCACGTCCGCAAGGCCTTCAAGAGCCAC GTCTCTACCTTGACAGACCTCCAGCCGTACATGCGACAGTTCGTGGCTC ACCTGCAGGAGACCAGCCCGCTGAGGGATGCCGTCGTCATCGAGCAGAG CTCCTCCTGAATGAGGCCAGCAGTGGCCTCTTCGACGTCTTCCTACGC TTCATGTGCCACCACGCCGTGCGCATCAGGGGCAAGTCCTACGTCCAGT GCCAGGGGATCCCGCAGGCTCCATCCTCCACGCTGCTCTGCAGCCT GTGCTACGCCGACATGGAGAACAAGCTGTTTGCGGGGGATTCGGCGGGAC GGGCTGCTCCTGCGTTTGGTGGATGATTTCTTGTTGGTGACACCTCACC TCACCCACGCGAAAACCTTCCTCAGGACCCTGGTCCGAGGTGTCCCTGA GTATGGCTGCGTGAACTTGCGGAAGACAGTGGTGAACTTCCCTGTA

FIGURE 5D

GAAGACGAGGCCCTGGGTGGCACGGCTTTTGTTCAGATGCCGGCCCACG GCCTAT

FIGURE 6A

HASGORCVLLRTWEALAPATPAMPRAPRCRAVRSLLRSHYREVLPLATF VRRLGPOGWRLVORGDPAAFRALVAQCLVCVPWDARPPPAAPSFRQVSC LKELVARVLORLCERGAKNVLAFGFALLDGARGGPPEAFTTSVRSYLPN TVTDALRGSGAWGLLLRRVGDDVLVHLLARCALFVLVAPSCAYQVCGPP LYOLGAATOARPPPHASGPRRRLGCERAWNHSVREAGVPLGLPAPGARR RGGSASRSLPLPKRPRRGAAPEPERTPVGOGSWAHPGRTRGPSDRGFCV VSPARPAEEATSLEGALSGTRHSHPSVGROHHAGPPSTSRPPRPWDTPC PPVYAETKHFLYSSGDKEOLRPSFLLSSLRPSLTGARRLVETIFLGSRP WMPGTPRRLPRLPQRYWQMRPLFLELLGNHAQCPYGVLLKTHCPLRAAV TPAAGVCAREKPQGSVAAPEEEDTDPRRLVQLLRQHSSPWQVYGFVRAC LRRLVPPGLWGSRHNERRFLRNTKKFISLGKHAKLSLOELTWKMSVRDC AWLRRSPGVGCVPAAEHRLREEILAKFLHWLMSVYVVELLRSFFYVTET TFOKNRLFFYRKSVWSKLOSIGIROHLKRVOLRELSEAEVROHREARPA LLTSRLRFIPKPDGLRPIVNMDYVVGARTFRREKRAERLTSRVKALFSV LNYERARRPGLLGASVLGLDDIHRAWRTFVLRVRAODPPPELYFVKVDV TGAYDTIPODRLTEVIASIIKPONTYCVRRYAVVOKAAHGHVRKAFKSH VSTLTDLQPYMRQFVAHLQETSPLRDAVVIEQSSSLNEASSGLFDVFLR FMCHHAVRIRGKSYVQCQGIPQGSILSTLLCSLCYGDMENKLFAGIRRD

FIGURE 6B

GLLLRLVDDFLLVTPHLTHAKTFLRTLVRGVPEYGCVVNLRKTVVNFPV EDEALGGTAFVQMPAHGL

FIGURE 7

TCCCCTGGTGCGGCCTGCTGGATACCCGGACCCTGGAGGTGCAGAGCGACT ACTCCAGCTATGCCCGGACCTCCATCAGAGCCAGTCTCACCTTCAACCGCGGCT TCAAGGCTGGGAGGAACATGCGTCGCAAACTCTTTGGGGTCTTGCGGCTGAAGT GTCACAGCCTGTTTCTGGATTTGCAGGTGAACAGCCTCCAGACGGTGTGCACCA ACATCTACAAGATCCTCCTGCTGCAGGCGTACAGGTTTCACGCATGTGTGCTGC AGCTCCCATTTCATCAGCAAGTTTGGAAGAACCCCACATTTTTCCTGCGCGTCA TCTCTGACACGGCCTCCCTCTGCTACTCCATCCTGAAAGCCAAGAACGCAGGGA TGTCGCTGGGGCCAAGGGCGCCGCCGCCCTCTGCCCTCCGAGGCCGTGCAGT GGCTGTGCCACCAAGCATTCCTGCTCAAGCTGACTCGACACCGTGTCACCTACG TGCCACTCCTGGGGTCACTCAGGACAGCCCAGACGCAGCTGAGTCGGAAGCTCC CGGGGACGACGCTGACTGCCCTGGAGGCCGCAGCCAACCCGGCACTGCCCTCAG ACTTCAAGACCATCCTGGACTGATGGCCACCCGCCCACAGCCAGGCCGAGAGCA AGGCCTGCATGTCCGGCTGAAGGCTGAGTGTCCGGCTGAGGCCTGAGCGAGTGT CCAGCCAAGGGCTGAGTGTCCAGCACACCTGCCGTCTTCACTTCCCCACAGGCT GGCGCTCGGCTCCACCCCAGGGCCAGCTTTTCCTCACCAGGAGCCCGGCTTCCA CTCCCCACATAGGAATAGTCCATCCCCTGAT

FIGURE 8A

CCACGCGTCCGGGCAGCGCTGCGTCCTGCTGCGCACGTGGGAAGCCCTGGCCCC GGCCACCCCGCGATGCCGCGCGCTCCCCGCTGCCGAGCCGTGCGCTCCCTGCT GCGCAGCCACTACCGCGAGGTGCTGCCGCTGGCCACGTTCGTGCGGCGCCTGGG GCCCAGGGCTGGCGGTGCAGCGCGGGGACCCGGCGCTTTCCGCGCGCT CCCCTCCTTCCGCCAGGTGTCCTGCCTGAAGGAGCTGGTGGCCCGAGTGCTGCA GAGGCTGTGCGAGCGCGCGCGAAGAACGTGCTGGCCTTCGGCTTCGCGCTGCT GGACGGGCCCGCGGGGCCCCCCGAGGCCTTCACCACCAGCGTGCGCAGCTA GCTGCGCCGCGTGGCGACGACGTGCTGGTTCACCTGCTGGCACGCTGCGCGCT CTTTGTGCTGGTGGCTCCCAGCTGCGCCCTACCAGGTGTGCGGGCCGCCGCTGTA CCAGCTCGGCGCTGCCACTCAGGCCCGGCCCCCCACACGCTAGTGGACCCCG AAGGCGTCTGGGATGCGAACGGGCCTGGAACCATAGCGTCAGGGAGGCCGGGGT CCCCTGGGCCTGCCAGCCCGGGTGCGAGGAGGCGCGGGGGCAGTGCCAGCCG AAGTCTGCCGTTGCCCAAGAGGCCCAGGCGTGCCGCTGCCCCTGAGCCGGAGCG GACGCCGTTGGGCAGGGTCCTGGGCCCACCCGGGCAGGACGCGTGGACCGAG TGACCGTGGTTTCTGTGTGTGTCACCTGCCAGACCCGCCGAAGAAGCCACCTC TTTGGAGGGTGCGCTCTCTGGCACGCGCCACTCCATCCGTGGGCCGCCA ·GCACCACGCGGCCCCCATCCACATCGCGGCCACCACGTCCCTGGGACACGCC TTGTCCCCGGTGTACGCCGAGACCAAGCACTTCCTCTACTCCTCAGGCGACAA

FIGURE 8B

GGAGCAGCTGCGCCCTCCTTCCTACTCAGCTCTCTGAGGCCCAGCCTGACTGG CGCTCGGAGGCTCGTGGAGACCATCTTTCTGGGTTCCAGGCCCTGGATGCCAGG GACTCCCGCAGGTTGCCCCGCCTGCCCCAGCGCTACTGGCAAATGCGGCCCCT GTTTCTGGAGCTGCTTGGGAACCACGCGCAGTGCCCCTACGGGGTGCTCCTCAA GACGCACTGCCGCTGCGAGCTGCGGTCACCCCAGCAGCCGGTGTCTGTGCCCG GGAGAAGCCCCAGGGCTCTGTGGCGGCCCCCGAGGAGGAGGACACAGACCCCCG TCGCCTGGTGCAGCTCCCGCCAGCACAGCAGCCCCTGGCAGGTGTACGGCTT CGTGCGGCCTGCCTGCGCCGGCTGCTCCCCCAGGCCTCTGGGGCTCCAGGCA CAACGAACGCCGCTTCCTCAGGAACACCAAGAAGTTCATCTCCCTGGGGAAGCA ·TGCCAAGCTCTCGCTGCAGGAGCTGACGTGGAAGATGAGCGTGCGGGACTGCGC TTGGCTGCGCAGGAGCCCAGGGGTTGGCTGTTCCGGCCGCAGAGCACCGTCT GCGTGAGGAGATCCTGGCCAAGTTCCTGCACTGGCTGATGAGTGTGTACGTCGT CGAGCTGCTCAGGTCTTTCTTTTATGTCACGGAGACCACGTTTCAAAAGAACAG GCTCTTTTTCTACCGGAAGAGTGTCTGGAGCAAGTTGCAAAGCATTGGAATCAG ACAGCACTTGAAGAGGGTGCAGCTGCGGGAGCTGTCGGAAGCAGAGGTCAGGCA GCATCGGGAAGCCAGGCCCGCCCTGCTGACGTCCAGACTCCGCTTCATCCCCAA -GCCTGACGGCCTGCGGCCGATTGTGAACATGGACTACGTCGTGGGAGCCAGAAC GTTCCGCAGAGAAAAGAGGCCCGAGCGTCTCACCTCGAGGGTGAAGGCACTGTT CAGCGTGCTCAACTACGAGCGGGCGCGCGCCCCGGCCTCCTGGGCGCCTCTGT GCTGGGCCTGGACGATATCCACAGGGCCTGGCGCACCTTCGTGCTGCGTGTGCG

FIGURE 8C

GGCCCAGGACCGCCGCCTGAGCTGTACTTTGTCAAGGTGGATGTGACGGGCGC GTACGACACCATCCCCCAGGACAGGCTCACGGAGGTCATCGCCAGCATCATCAA ACCCCAGAACACGTACTGCGTGCGTCGGTATGCCGTGGTCCAGAAGGCCGCCCA TGGGCACGTCCGCAAGGCCTTCAAGAGCCACGTCTCTACCTTGACAGACCTCCA GCCGTACATGCGACAGTTCGTGGCTCACCTGCAGGAGACCAGCCCGCTGAGGGA TGCCGTCGTCATCGAGCAGAGCTCCTCCCTGAATGAGGCCAGCAGTGGCCTCTT CGACGTCTTCCTACGCTTCATGTGCCACCACGCCGTGCGCATCAGGGGCAAGTC CTACGTCCAGTGCCAGGGGATCCCGCAGGGCTCCATCCTCTCCACGCTGCTCTG CAGCCTGTGCTACGGCGACATGGAGAACAAGCTGTTTGCGGGGGATTCGGCGGGA CGGGCTGCTCCTGCGTTTGGTGGATGATTTCTTGTTGGTGACACCTCACCTCAC CCACGCGAAAACCTTCCTCAGGACCCTGGTCCGAGGTGTCCCTGAGTATGGCTG CGTGGTGAACTTGCGGAAGACAGTGGTGAACTTCCCTGTAGAAGACGAGGCCCT GGGTGGCACGGCTTTTGTTCAGATGCCGGCCCACGGCCTATTCCCCTTGGTGCGG CCTGCTGCTGGATACCCGGACCCTGGAGGTGCAGAGCGACTACTCCAGCTATGC CCGGACCTCCATCAGAGCCAGTCTCACCTTCAACCGCGGCTTCAAGGCTGGGAG GAACATGCGTCGCAAACTCTTTGGGGTCTTGCGGCTGAAGTGTCACAGCCTGTT TCTGGATTTGCAGGTGAACAGCCTCCAGACGGTGTGCACCAACATCTACAAGAT CCTCCTGCTGCAGGCGTACAGGTTTCACGCATGTGTGCTGCAGCTCCCATTTCA TCAGCAAGTTTGGAAGAACCCCACATTTTTCCTGCGCGTCATCTCTGACACGGC CTCCCTCTGCTACTCCATCCTGAAAGCCAAGAACGCAGGGATGTCGCTGGGGGC

FIGURE 8D

FIGURE 9A

HASGORCVLLRTWEALAPATPAMPRAPRCRAVRSLLRSHYREVLPLATF VRRLGPOGWRLVORGDPAAFRALVAOCLVCVPWDARPPPAAPSFROVSC LKELVARVLORLCERGAKNVLAFGFALLDGARGGPPEAFTTSVRSYLPN TVTDALRGSGAWGLLLRRVGDDVLVHLLARCALFVLVAPSCAYOVCGPP LYOLGAATOARPPPHASGPRRRLGCERAWNHSVREAGVPLGLPAPGARR RGGSASRSLPLPKRPRRGAAPEPERTPVGOGSWAHPGRTRGPSDRGFCV VSPARPAEEATSLEGALSGTRHSHPSVGROHHAGPPSTSRPPRPWDTPC PPVYAETKHFLYSSGDKEQLRPSFLLSSLRPSLTGARRLVETIFLGSRP WMPGTPRRLPRLPORYWOMRPLFLELLGNHAOCPYGVLLKTHCPLRAAV TPAAGVCAREKPOGSVAAPEEEDTDPRRLVOLLROHSSPWOVYGFVRAC LRRLVPPGLWGSRHNERRFLRNTKKFISLGKHAKLSLOELTWKMSVRDC AWLRRSPGVGCVPAAEHRLREEILAKFLHWLMSVYVVELLRSFFYVTET TFOKNRLFFYRKSVWSKLOSIGIROHLKRVOLRELSEAEVROHREARPA LLTSRLRFIPKPDGLRPIVNMDYVVGARTFRREKRAERLTSRVKALFSV LNYERARRPGLLGASVLGLDDIHRAWRTFVLRVRAQDPPPELYFVKVDV TGAYDTIPQDRLTEVIASIIKPQNTYCVRRYAVVQKAAHGHVRKAFKSH VSTLTDLQPYMRQFVAHLQETSPLRDAVVIEQSSSLNEASSGLFDVFLR FMCHHAVRIRGKSYVQCQGIPQGSILSTLLCSLCYGDMENKLFAGIRRD GLLLRLVDDFLLVTPHLTHAKTFLRTLVRGVPEYGCVVNLRKTVVNFPV

FIGURE 9B

EDEALGGTAFVQMPAHGLFPWCGLLLDTRTLEVQSDYSSYARTSIRASL
TFNRGFKAGRNMRRKLFGVLRLKCHSLFLDLQVNSLQTVCTNIYKILLL
QAYRFHACVLQLPFHQQVWKNPTFFLRVISDTASLCYSILKAKNAGMSL
GAKGAAGPLPSEAVQWLCHQAFLLKLTRHRVTYVPLLGSLRTAQTQLSR
KLPGTTLTALEAAANPALPSDFKTILD

FIG. 10

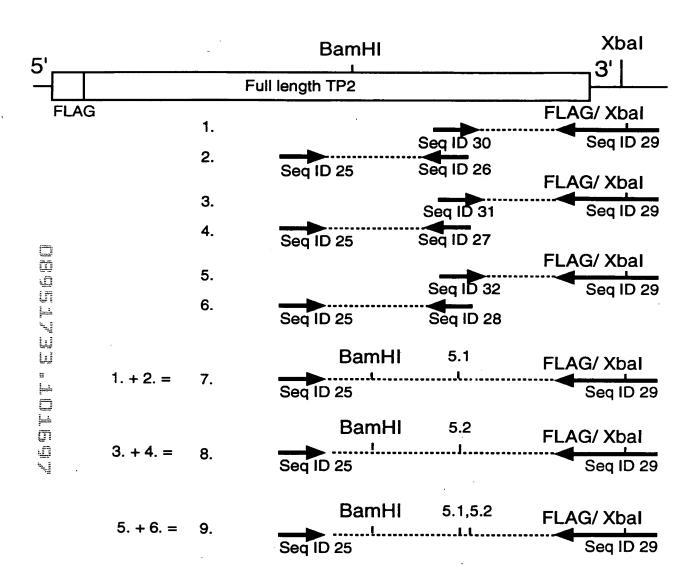
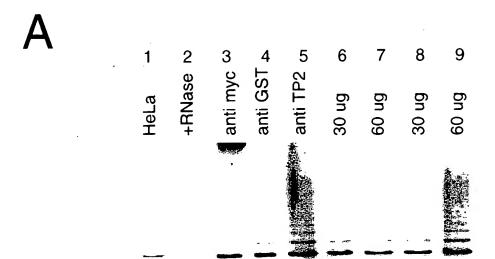
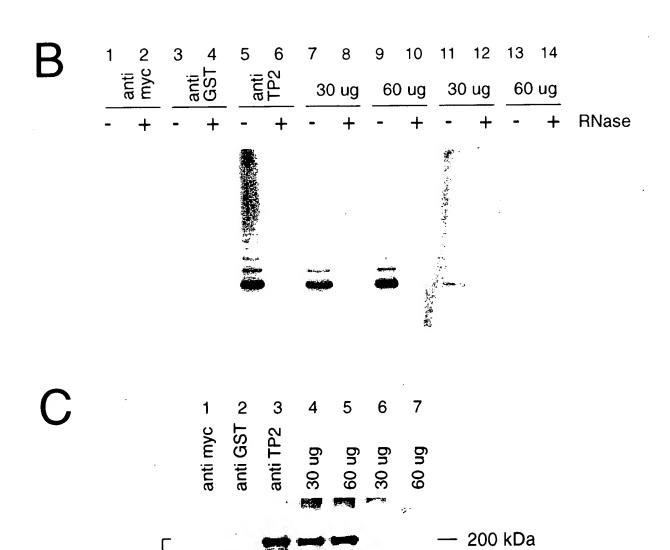


FIG. 11





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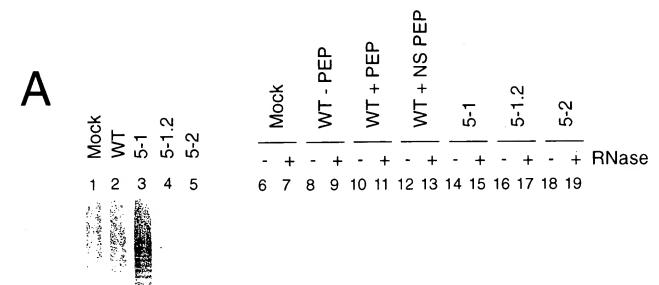
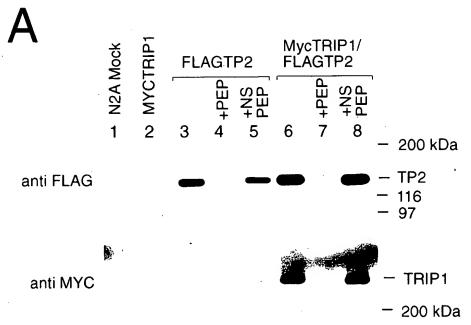


FIG. 13



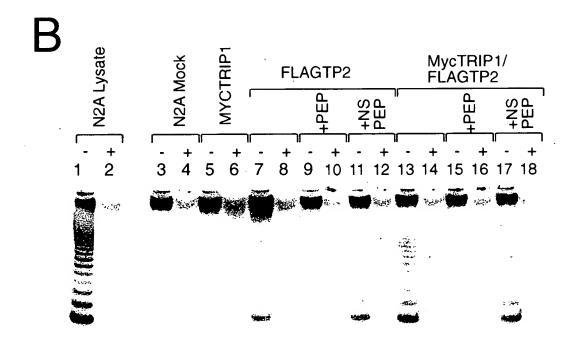


FIG. 14

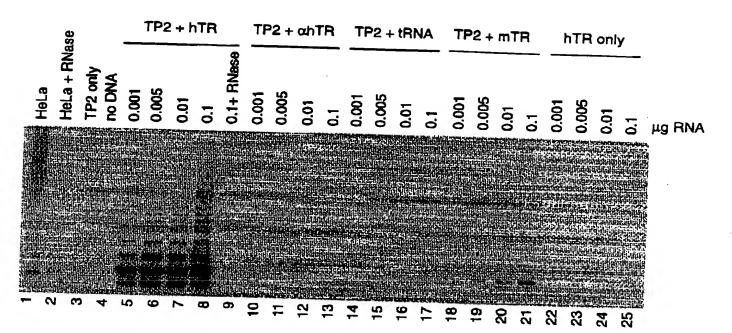
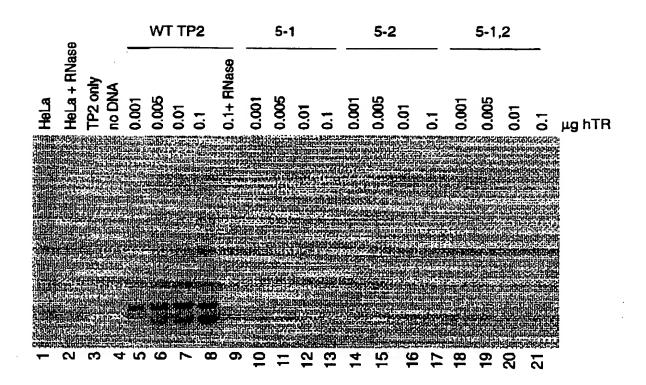


FIG. 15



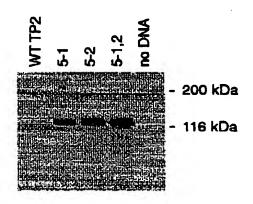


FIG. 16

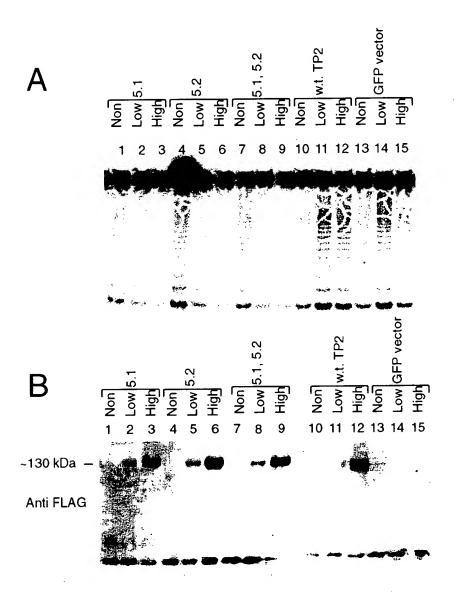


FIG. 17

